



July 19, 2011

CTMGT Crownridge, LLC  
ATTN: Brian G. Saathoff  
12306 Waterton Parke Circle  
Austin, TX 78726

SUBJECT: The Heights of Crownridge  
Lots 2-4 Hays Hills - RW #12  
Site Retaining Wall Analysis  
San Antonio, Texas  
(Project No. 11-011)

Dear Brian:

I have completed my site visits and review of the existing drawings for the Stone and Mortar "gravity" site retaining wall along the back of Lots 2-4 on Hays Hills. This wall is identified as RW #12 on the Carter Burgess Civil plans. This wall starts along the back (South side) of Lot 2, extending East to the corner of Lot 5 and then extends up the East side of Lot 5.

My initial site visit found a significant vertical crack and slight bulging of the middle portion of the wall along the East side of Lot 5. The max height of this portion of the wall was approximately 21 ft. To verify that this wall was built per the plans and determine what caused the vertical crack and bulging, we needed to excavate behind the wall. It became clear that this wall was not built per the plans and it was decided that the wall height needed to be reduced for safety reasons. The wall was lowered to approximately half its height along the East side of Lot 5. Because of this lowering, the requirements of Lot 5 will be addressed at a later date. Therefore, this letter only addresses the portion of RW #12 that is directly behind Lots 2-4 (South sides).

The maximum height of the portion of RW #12 behind Lots 2-4 is approximately 12 ft. This wall appears to have been built between 2006 and 2008. This "gravity" type wall appears to be constructed in a narrow pyramid shape with Stone & Mortar bearing on a concrete footing. It was determined that excavation behind this wall would not be required due to the maximum height and lack of significant cracking or movement in

the exposed face. Also, the planned house foundations are set back a minimum of 40 ft behind the back of the wall which limits any additional pressures on the wall. The back portions of these lots appear to be graded at a maximum slope of 3 to 1. Based on this slope, the bottom of the house foundations will fall below a 2 to 1 slope, measured from the bottom of RW #12. This 2 to 1 slope of influence is conservative, since actual slope of influence could be as steep as 1 to 1.

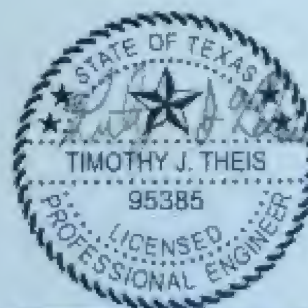
Exactly how this type of Stone and Mortar construction occurred is nearly impossible to verify conclusively. The wall would have to be demolished in order to verify that the entire wall was built per plans. Even if one section was opened up to verify the construction, it only represents that specific portion of the wall. Therefore, because of the maximum height, lack of planned houses within the influence of the wall, and the length of time that the wall has maintained its condition, it was determined that this portion of the wall could be certified based on visual observations.

I have included a marked-up version of the Carter Burgess grading plan sheet GR2 to indicate the house foundation location requirements for Lots 2-4. Based on these foundation requirements being met, my review of the site conditions above the wall, the condition of the wall and the lack of additional planned loading that will influence the wall, the wall appears to have been built per plans and appears to meet the design intent. It should be noted that this conclusion is based on no destructive testing of the wall or exposure of the back of the wall.

Please contact me if you have any questions.

Sincerely,  
THEIS ENGINEERING, LLC

Tim Theis, P.E.  
Member / Owner



7/19/11

EXPIRES: 3-31-12  
THEIS ENGINEERING F-9854



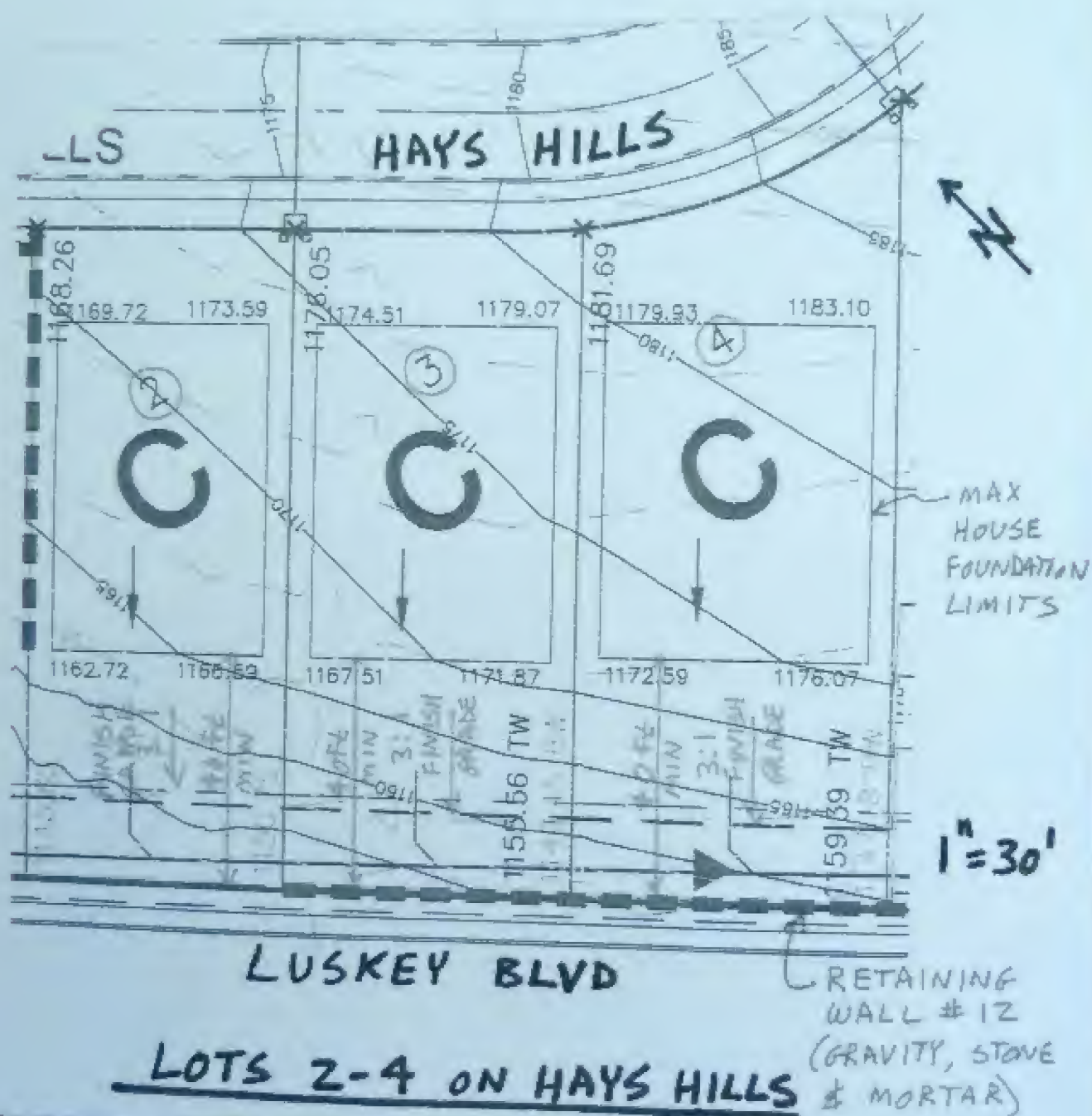


THEIS ENGINEERING, LLC

"Retaining Wall Design Is Our Specialty"

PROJECT: Heights of Crown Ridge, Lots 2-4 Hays Hills, San Antonio, TX PROJECT NO: 11-011

SUBJECT: Partial Site Plan for Lots 2-4 Hays Hills DATE: 7/19/11 SHEET: 3 of 3



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